

Good 690 Morning

The Daily Paper of the Submarine Branch
With the Co-operation of the Office of Admiral (Submarines)

Would You Like to be a Bath-tub Gardener?

SUPERB carnations and perfectly clean, high-grade lettuces growing, not in the soil, but in coarse shingle held back nearly a century in a greenhouse tank—that is what you can see in some Surrey nurseries belonging to Mr. S. R. Mullard, the well-known radio-valve expert.

The carnations have flowers of unusually brilliant colours and size. The lettuces can be eaten to the last leaf. There are no dirty "outside leaves" to be discarded.

Instead of getting the chemicals essential to their growth from cultivated soil, these plants get it from a specially prepared chemical solution in the tank. The solution is renewed automatically by a small pump, which switches itself on and off as required.

Recently it was stated that Mr. Mullard had made an offer to the Air Ministry and Ministry of Labour to train suitable ex-Servicemen in the science of "gardening without soil" and that a few candidates had been selected.

If soilless gardening in greenhouses can be firmly established on a commercial basis in Britain, it will supply us with many of the early and luxury vegetables and flowers which we used to import and on which we may have to restrict imports after the war.

FOOD FOR THE GODS.

"Hydroponics," "chemical farming," and bathtub gardening," as the science has been variously christened, is not new. The fundamental know-

ledge that plants use the soil simply to absorb certain chemicals necessary to their growth goes back nearly a century.

Various laboratory experiments in water-culture had been made before Dr. W. F. Gericke of the University of California put "hydroponics" right on the map with large-scale experiments that began in 1930.

Using a very large glasshouse in the University grounds, he obtained sensational results—huge tomato plants from which the fruit could only be picked with step-ladders, and tobacco that went up to the roof.

Out of doors he grew potatoes at the rate of nearly 2,500 bushels per acre of tank surface, compared with the U.S.A. average of 116 bushels an acre.

The principles of the process are comparatively simple. Instead of being planted in soil, the seed is laid in straw, moss, or some other suitable substance carried on a wire tray over a tank. The temperature is carefully controlled and the seed sends its roots down to the chemical solution in the tank. They pick up the necessary nutriment and the plant grows as it would outside, but usually faster.

Dr. Gericke found that remarkable control over the growth of plants could be obtained by variations in the temperature and the constituents of the chemical solution. The exact proportions of some ten basic elements in the solution have to be carefully con-

trolled to prevent the plant being either starved of essentials or overfed with particular elements.

The chemicals fall into three groups; the essential ones providing "food" are nitrogen, phosphorus, potassium, calcium and magnesium. Commercially the chemicals used are generally potassium nitrate, calcium phosphate and magnesium sulphate.

The second group consists of sulphates, not absorbed in great quantities, but important as balancing agents.

The third group contains the "trace" elements, the vitamins, so to speak, of the plant world, necessary only to the extent of one part in some millions, but vital. These include iron, manganese, copper, zinc and boron and may be present as "impurities" in the chief chemicals.

To give some idea of the amounts required, Dr. Gericke used 7 lbs. of dry chemicals for 20 tomato plants in a basin 10 feet long and 2½ wide. The average yield was 306 lbs. per basin.

The experiments attracted great attention and some rather wild forecasts that farming as we knew it was finished, were made. Commercial plants went into operation, notably in California, and some at least competed successfully with products grown in more orthodox fashion.

But it soon became apparent that "water culture" had its difficulties as well as its advantages, and that "old-fashioned"

gardening and farming with soil would flourish for a long time to come. The difficulties can only be briefly summarised here.

Perhaps the most important is the high cost of the original plant. Although it was found possible to use cruder materials for construction and cruder chemicals for feeding, than at first seemed likely, the capital cost of an installation remained high. This suggests that it is essentially a method that will be restricted to "luxury" vegetables and flowers.

GODS OF THE FOOD.

As not a few amateurs found to their cost, very great care and accuracy was needed in feeding the plants if they were to thrive. There was none of the usual gardener's "handfuls" of fertiliser to be scattered as convenient.

Conditions from temperature and humidity to the strength



A RIVAL IN TAN for E.R.A. Reg. Lee

WHAT about some mail from you, E.R.A. Reg. Lee? Your wife at 5, Morley Hill, Enfield, told us that she hadn't heard from you for quite a long time, so you'd better get down to it or you'll find that fine son of yours on the warpath!

Alan, who looks just like you, according to his mother, is just beginning to walk, and when Mrs. Lee is busy, he goes to his doggy pal for help. They are great friends and Alan often cadges a ride on Micky's back.

When Alan isn't discovering something new to do to keep his mother busy, he's lying in the garden in his pram—sunbathing—and, as a result, he has cultivated a really lovely tan which you'll find difficult to outshine when you get home.

Meanwhile, everything at Morley Hill is still the same—apart from your absence.

The piano is waiting, and your wife, who kept making remarks about your highbrow

taste in music, takes special care of it for you.

All the folk, too, are well, and send their best wishes to you for a speedy re-union. Mrs. Lee sees your family about once a week, and they always tell her how much they're looking forward to seeing you again.

When you do get home, there ought to be some celebration at the "Nag's Head" in Enfield. That pub seems to be the favourite among Enfield submariners, though we wouldn't know why. All of them, the "George Inn" and the "King's Head" included, looked equally good to us.

Well, that's about all the news from home now, Reg, except for a last message from your wife. She sends you lots of love from both her and Alan, and is longing all the time for your safe and speedy return.

Oh, and she did say something about curtain material, too. Would you know anything about that?

HOME TOWN GOSSIP

DESPITE many appeals from the public that it should consider turning over the partly completed Municipal Buildings in College Green for use as a popular hotel, the City Council are determined to go on with the original plan, and building will be recommenced as soon as permission can be obtained.

Flanking the great half-moon structure will be two magnificent bronze statues, 30ft. high.

One of the statues is so far a secret, but the other is to be called "NIGHT," and shows the nude figure of a Grecian-type woman in a pose

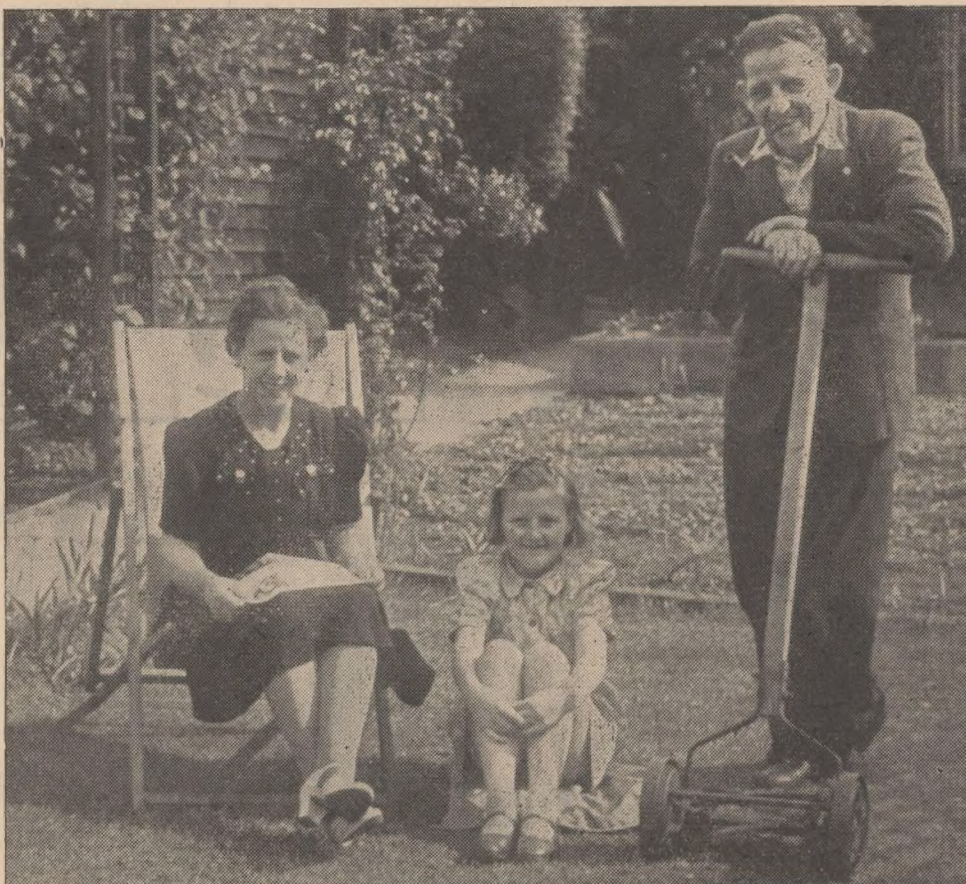
very like that of Eros in Piccadilly.

Round the Council House will be a strip of ornamental water with a fountain at each end of it. The statue of John Wesley, the evangelist not far away, which has been protected by a brick wall for the past few years, has now been uncovered.

THOSE delegated to deal with the problem are doing their utmost to make certain that Bristol shall not take second place to her rivals in the post-war competition. Bristol aeroplanes will still be built, on a very reduced scale, of course.

Workers will find that the manufacturer of portable houses will absorb a lot of labour for some years ahead.

By the way, did you know that many of the Mulberry harbours used for the landings in Normandy, were made in Bristol; or that the breweries which are making real hop beer for troops in the Far East, are not only made here but are the patent of a Bristol engineering firm?



Talk of Open Spaces and A.B. Creedy

HEARING that the basic petrol ration might soon be coming in, your Pop, A.B. John Creedy, was giving the old car a clean up when we called at 135, Siddeley Avenue, Coventry. But Mum soon got him off that. The lawn wanted mowing, and while she and sister Joan rested in the heat, Pop did some mower pushing.

They are celebrating V-Day when you come home. They had been up to Uncle Alf's and to see Grandma Creedy

to celebrate VE-Day, but the real Big Do will be left for your homecoming.

They have heard from Mr. and Mrs. Carse, and Mr. and Mrs. Landrey, of Perth, Australia, and everyone at home envies you being in Australia.

They tell us you were born there, and everyone at your home wants to get back to the open spaces and blue seas.

Your old employers, the B.T.H., have written to your

dad to ask if you want to continue your job with them after the war. He is keeping the letter until you get a little nearer home, and then you had better stake your claim!

But Pop says you have probably found some beautiful Australian girl by now, and, judging by the photos he had of you sun-bathing, horse-riding and tennis-playing out there, you may say "To hell with smokey old 'Brum'!"



"Sorry, sir, your wife's not at home. Who shall I say called?"

of solution had to be controlled with laboratory exactness.

There has yet hardly been time to discover whether this method ultimately encourages special diseases, but in its favour it can be said that the early experiments suggested there would be no more difficulty than with the usual method of cultivation in soil.

"Hydroponics" is unlikely to sweep England, or even compete heavily with the ordinary nursery gardener. But it might become a prosperous little industry providing fascinating occupation for those with a taste for gardening and science. It is certainly an interesting and novel line for the amateur looking for something new.

JUST FANCY

SAYS Professor J. Frank Dobbie, the Texan who became a temporary Don at Cambridge: "Young Britons do not find young women's company so necessary as young Americans do. There is less snobbery at Cambridge than at Princeton (one of America's top 'Varsities'). The British are better trained mentally; their intellectual activity is not modelled on that of the tired business man."

WOMEN are to blame for this cigarette famine in America. They smoke 69 per cent. of the "home" output.

"RICHMOND": For Sale. Old-World Residence; 4 bedrooms, 3 reception rooms, garage, small walled garden. —Advt. A.R.P. in seclusion?

We ALWAYS write to you, if you write first to "Good Morning," c/o Dept. of C.N.I., Admiralty, London, S.W.1

POST-WAR MESSENGER OF THE SKIES

THE Miles Aircraft concern is one of the largest in the country, or for that matter in the world. Run mainly by the brothers Miles, this company turns out the great majority of our Services' primary and advanced Trainers, besides several other not-so-well-known types of aircraft. Like most other aircraft companies, Miles Aircraft Ltd. are already testing prototypes of planes designed for the post-war market.

I WAS present when one of these planes was demonstrated to an audience of Foreign Government representatives and high-ranking officers.

Before we set out for the airfield, Mr. F. G. Miles explained to us during luncheon, some of the difficulties facing the British Aircraft manufacturer to-day.

The present position of British Aircraft manufacturers was, he said, that whereas they were working all out on war production they also had to keep an eye on the post-war Civil Air market. They were trying to have models ready for production as soon as peace was declared, but, of course, work done on these designs must not interfere in any way with their output of military aircraft.

It was essential they should do this if Britain's position in

the realm of Civil Aviation was to be maintained.

In some cases it was possible, Mr. Miles said, to design an aircraft for a definite military role, which could, with only slight modification, be subsequently used for Civil air purposes. The aeroplane we were to see fell into that category, and could be used either in its military capacity or for civilian purposes.

DEMONSTRATION.

At the airfield, we took our positions near various Miles planes parked on the field. Cameramen were busy taking films and there was an atmosphere of the pre-war R.A.F. displays. Tiger Moths, Harvards, and Miles Falcons, from a nearby school, constantly passed overhead.

The plane to be demonstrated was the M.38, called "Mess-

enger," a low-wing monoplane which has only been in production for a few weeks. Its military role is that of a light communications plane. It is similar to the M.28 and M.48, but is far more manoeuvrable and takes off or lands in a very small space. Hence its usefulness as a messenger, or observer plane when operating from difficult terrain.

"Well," said the gold-braided officer, smiling, "I'd like to see a helicopter do that!"

The M.38 peeled off into a dive, doing considerably more

countryside so as to see for themselves the "Messenger's" flying qualities. With its large span wings (36ft. 2in.), and triple tail, it gave the impression of being far bigger than it really was.

When they returned, safe and smiling, I was given the opportunity of flying in the M.38 with one of the test pilots.

SILVER IN THE SKY.

We took off in a 60-yard run, and zoomed around the country for a while. The "Messenger" can climb at 1,000 feet per minute, which is exceptional for such a small plane. It had been a bit cloudy, but up above the sky was full of the glory of the sun, dazzling the eyes, and reflecting on the fleecy blanket of cloud beneath.

A whole group of Liberators passed above, their unpainted fuselages sparkling like a hundred silver gems in the pale clear sky. A large radio transmitting and receiving set took up lots of room next to me, yet we could easily have got two more people into the cabin.

We could cruise at anything from 30 to 80 m.p.h. The single engine sounded amazingly powerful up there, 6,000 feet above the drome, and yet there was very little vibration in the comfortable armchair seats.

It could have taken us up to 17,000 feet, but that height is inclined to be uncomfortable without masks or pressurized cabins. We came down through the clouds in quite a steep dive and glided the remaining 500 feet on to the aerodrome.

It's a snappy little job, this

forerunner of the family tourer, a sound bit of British craftsmanship.

Its amazing robustness and flying characteristics make it ideal for the none-too-expert flying sportsman or business man.

When this little plane emerges from its khaki camouflage like a silver moth, the dawn of civil aviation will have come about.

"Wouldn't you like to have one of these planes after the war?" I asked the pilot.

"Like to," he said "I've already bought one!"

PETER VINCENT the Air Correspondent describes how the Miles Aircraft factory is adapting a light war monoplane for use as a 2-4 seater family tourer

After the war this model will be sold as a 2-4 seater family tourer.

The M.38 rose and circled round at 1,000 feet until it was right above us. Then the pilot cut the speed to 40 m.p.h. As there was a 35 m.p.h. headwind, the plane was practically stationary over our heads. Its actual stalling speed is 28 m.p.h.

One of the officers with gold braid smeared all over his cap said to me, "You see, it can hover as well as a helicopter, and has none of a helicopter's disadvantages."

"Yes, but a helicopter doesn't need a headwind to keep it stationary in the air," said another spectator. "Besides, it's wobbling."

The M.38 did a series of vertical banks and turns about 500 feet above us, then it climbed about 1,000 feet and did a neat loop.

than its 120 m.p.h. maximum, and a few seconds later it came racing in at us across the fields, two feet from the ground, touching down about sixty yards away.

It stopped eight yards from us. The Foreign representatives were impressed; and a trifle on the shaky side.

Some of them were taken up on a demonstration flight in another "Messenger," one with a larger engine. These M.38s can be fitted with alternative engines, ranging from 130 h.p. to 175 h.p., and can be adapted for dual control. Hence, for the post-war market, the M.38 will fill a variety of roles.

Besides being a private or business flyer, it can be used as an air-taxi, club aeroplane, light freighter or primary

The Foreign representatives were whisked around the

QUIZ for today

1. What is the length in yards of (a) the international, (b) the British, nautical mile?
2. What is the common name for potassium nitrate?
3. How far can you see from a height of 15 feet?
4. Which is more digestible, goose or veal?

5. What is the length of the Derby racecourse?
6. Which of the following is an intruder, and why? Nail, Brad, Tack, Screw, Pin.

Answers to Quiz in No. 689

1. Eighty.
2. Leigh.
3. Twelve.
4. Wills-den.
5. 42 inches.
6. The famous Wall Street is in New York; others are in London.

I Get Around By DEREK HEBENTON

THE Information Bureau at the N.A.A.F.I. Club, Darlington, was telephoned the other day by an Army sergeant, who asked if Pte. X had had a bath at the club. The toilet attendant confirmed that Pte. X had been for a bath, and the sergeant was informed that his instruction had been carried out.

This is cited as one of the thousand-and-one queries received by N.A.A.F.I. Club Information Bureaux in the course of a week.

One Serviceman wanted to trace the address of his girl-friend in the Wrens, who had been re-posted, and he had forgotten to ask for her new address. The Information Bureau supplied it.



TWO intruders on the premises of the Antelope Inn, Union Street, Plymouth, after closing-time were defeated by an ex-Army captain and a Naval Petty Officer in a "combined operation."

Using the heavy mallet with which the beer taps are driven into barrels, one of the intruders crowned the landlord, Ex-Captain Reginald Crane, aged 49, veteran of the Great War and wounded three times in this.

When 51-year-old Petty Officer Gilbert Kite joined in the fray the mallet was soon won from the intruders, and after one of them had become a casualty the other bolted and was caught by the police.



FROM America comes the following story:

The manager of a departmental store in Omaha received an unsigned letter containing two one-dollar notes. The letter said: "The enclosed cash is for a child's play-suit. Your assistants were too busy."

Well, for evermore!

It was late at night. The taxi had just pulled up by the kerb, and McPherson got out and began fumbling in his pocket. At last he handed the driver a coin.

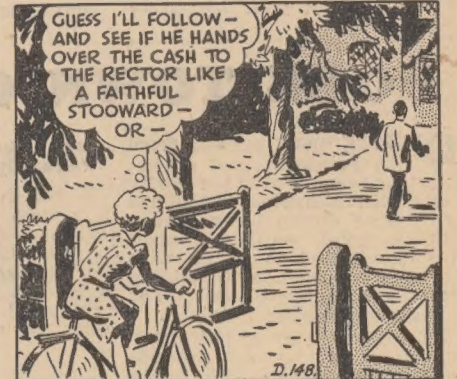
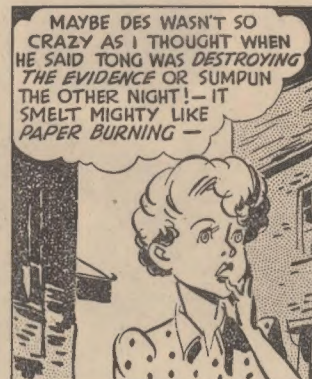
"I have known gents what gives a bit over," grumbled the taxi-driver.

"Aye," said McPherson, "that's why I asked ye to stop under a lamp."

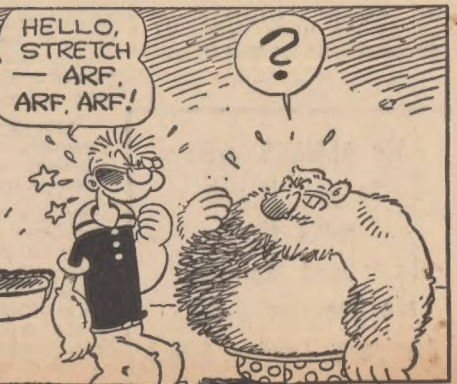
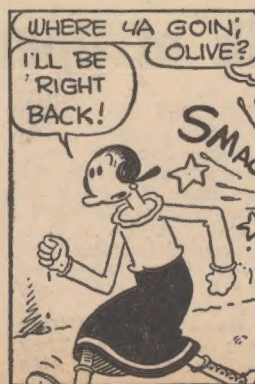
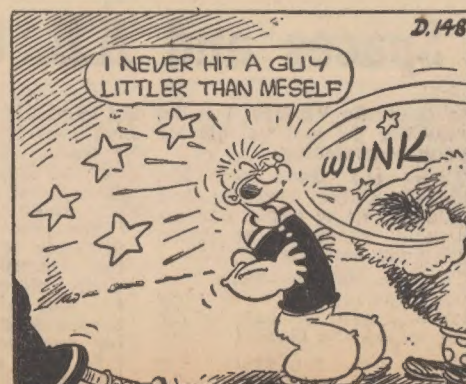
BEELZEBUB JONES



BELINDA



POPEYE



Wangling Words No. 629

1. Behead a pal and get a murmur.
2. Insert the same letter seven times and make sense of: Ollyicksaleinkoies.
3. What common word has QU for its exact middle?
4. The two missing words contain the same letters in different order: He left us and retired to his — out of sheer —

Answers to Wangling Words—No. 628

1. (F) LUTE.
2. Which wench went with you to the water to wash?
3. AnALYSIS.
4. Best, bets.

JANE

It's Wonderful What They Pinch!

NO less than 7,000 brand new books were stolen by a thief recently. They were tracked down by Scotland Yard and the thief arrested. As claims to only 3,000 of the books were substantiated, the remaining 4,000 books in this unusual haul, symptomatic of war-time conditions in Britain, will go to the Red Cross.

Police records of different countries show that in the past thieves have stolen even stranger things. Nothing is too large, too heavy or too difficult for the enterprising gang!

From New Jersey not long before the war there came a story of a church being stolen. True, the church, attended by a negro congregation, was only about 20 ft. long, but it was a considerable feat to remove it undetected during a single night, complete with the

pews and hymn books. Only a piano remained to indicate that the church had ever been there!

An even stranger story came from America 37 years ago, when it was reported that a 16 storey-building had disappeared during the night at Dyersville, Tennessee.

The only clues to the mystery was that during the night six people going home late had been sandbagged, but not one recollected seeing an assailant or knew anything that happened before they became unconscious. Many townspeople reported hearing a very loud noise, but it was taken to be a high wind.

The fact is that the building disappeared and that the most minute examination of the ground underneath to see if it could have fallen into a cavity failed to reveal anything. A

reward of several thousand pounds was offered for news of the thieves or proof of the method of theft. It remained unclaimed!

Block of eight flats in Montreal was stolen in a different fashion about ten years ago. The flats had been left empty because tenants could not be found for them in the depression. When the owner returned, he found that virtually nothing remained. One thief after another had taken something—first the doors, then the window frames, and so on, until bricks and concrete were being carted away!

Stealing a bridge would seem even harder than stealing a house, but it has been done. In 1936, the police chief of Kutno, sixty miles west of Warsaw, drove over the bridge crossing the River Odnia. Next

morning when he was returning—there was no bridge! The last report still gave no news of it.

Probably the bridge, which was a 50 foot span of iron, found its way to the scrap iron market.

That is what happened to a railway, or at any rate a part of it in America a few years before the war. The railway was used only infrequently. Thieves simply tore up the rails and carried them off.

At about the same time an equally strange theft was reported from Canada. Two men managed to get into a locomotive shed during the night. They drove out a locomotive and were quietly dismantling it in a deserted siding when arrested!

In 1935, 400 yards of a street in Brooklyn were stolen. No one seems to know quite how it

started. Perhaps someone short of coal stole a few of the wooden blocks with which the street was paved. The idea caught on. When the police arrived, 500 men and women were busy with hatchets, screwdrivers and other tools, lifting the blocks and carting them home in barrows and prams. Four hundred yards of wood paving disappeared.

Thieves have sometimes stolen roofs of buildings for their lead. An Essex church a few years ago was completely stripped. J. M. M.

- Solution to Puzzle in No. 689
1. m u s t y
 2. t h u m p
 3. g a m i n y
 4. d i a r y
 5. b a t c h
 6. a c r i d
 7. c l a s h



ROCKET MAIL

AT least one of Hitler's V-weapons may be put to useful peace-time account.

Scientists have been working on the idea of launching rockets filled with letter mail from one country to another, and, according to reports, they are confident that the thing is possible.

The V-2 which gave Londoners such an ordeal was never accurate. The Germans could be sure that the missiles landed in London or on its outskirts, but they were never able to pick the actual landing point. But there seems to be something in the reports that they had got a long way towards producing a rocket—the V-4—which could be used with the accuracy of artillery fire.

It is likely that our "backroom boys" will not find it difficult to arrive at the same point. Once this has been achieved, there is no reason why rocket mails should not be fired, say, from a site near Paris to a landing ground near London, with the certainty that the rocket would fall within a selected area.

The thing would not remain there. Further development would enable other capitals of Europe, at least, to be linked up by rocket mail.

Fantastic? - That's what anyone would have said about any of the V weapons a few years ago.

D.N.K.B.

CROSS-WORD CORNER

SWAMP HEATH
I TORRENT A
NAIVE WATER
UNLESS CARE
SET TANTRUM
R ROVES D
CORONET LID
LIEU STRATA
EDITH LAPEL
A GEEZERS L
TANSY SEEDY

1	2	3	4	5	6	7	8	9
10				11	12			
13				14				
15				16		17		
			18				19	20
21	22	23			24		25	
	26		27		28		29	
30					31			
32					33			34
35				36			37	
38				39				

CLUES ACROSS.—1 Dilapidated, 6 Footway, 10 Due, 11 Girl's name, 13 Recess, 14 Sire, 15 Red flower, 17 Dandy, 18 Birds, 19 "The" French, 21 Recede, 24 Embroidered, 26 Brighten, 29 Bathing place, 30 Insignia, 32 Grain, 33 Modern artist, 35 Fellow man, 37 Hint, 38 Compass point, 39 Extolled.

CLUES DOWN.—1 Quality of fibre, 2 Trust, 3 Too, 4 Mix, 5 Bark, 6 Reading, 7 Boy's name, 8 Rang as bell, 9 Boater, 12 Girl's name, 16 Rustic, 20 Chose, 22 Dims, 23 Human digit (two words), 25 Citizens' duty, 27 Huge, 28 Improved, 30 Plunders, 31 Subtle emanation, 34 Entreat, 36 Horsepower.

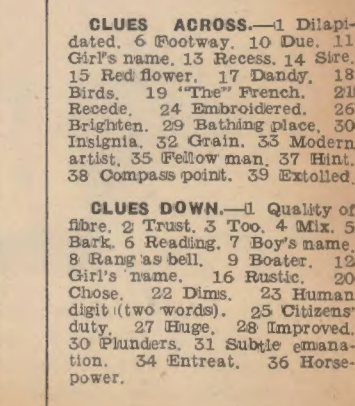
RUGGLES



GARTH



JUST JAKE



Good Morning



Does this mean anything to you, Gloucester men? It's a view of Bourton on the Water—not to be confused with Burton in the Tankard, but both suggesting peace and leisure.



View of a submariner who thinks it's a rough sea that is making the walls to dance and wiggle about, when all he wants is a little more sleep to get rid of that nasty headache caused by the thought that his leave is up, or something he must have taken strong.



★ Delightful Sally Gray, in one of her listening poses in "Why Listen, Eileen?" Now, if Sally would only listen to us, she'd hear something good about herself.



Even farmers have a butter ration, and here at Harlow Hill farm, near Hexham, Northumberland, is Mrs Byerley, who makes her own ration, bakes her own bread and cakes, grows her own veg. and gets bees to produce honey. And what with one thing and another that's the life we have always dreamed of—dreamed, we say.



"Can't I pose as well as her, stupid? Maybe not the same way, but I'll bet she wouldn't do this—not for buns, like I'm doing."

OUR CAT SIGNS OFF

"I can't bear it Be-have yourself, you big stiff."

